

## What Is Claimed Is:

1           1. An amplification circuit amplifying an input signal to generate an output signal,  
2       said amplification circuit comprising:

3           an amplifier amplifying said input signal, wherein a gain of said amplifier changes  
4       when amplifying said input signal; and

5           a component provided across an output of said amplifier, wherein an impedance of  
6       said component does not change when amplifying said input signal such that changes in an  
7       amplification factor provided by said amplification circuit are minimized when amplifying  
8       said input signal to generate said output signal.

1           2. The amplification circuit of claim 1, wherein said component comprises a resistor.

1           3. The amplification circuit of claim 2, wherein said amplifier contains a first output  
2       terminal and a second output terminal, and wherein said resistor is connected to both of said  
3       first output terminal and said second output terminal.

1           4. The amplification circuit of claim 3, further comprising a feedback circuit across  
2       said amplifier, wherein a resistance value of said resistor is chosen using the equation:

3       
$$G_{300} = (1/B_{300}) / [1 + \{ S_c * (1 + P * V_{out}) + S_{390} \} * \{ 1 + Q * V_{out} * (S_c + S_{390}) / H_c \} / (H_c * B_{300})],$$

4           wherein said resistance =  $(1/S_{390})$ ,  $G_{300}$  represents an amplification factor of said  
5       amplification circuit,  $B_{300}$  represents a feedback factor of said feedback circuit,  $S_c$ ,  $P$ ,  $Q$  and  
6        $H_c$  are determined by a manufacturing process used to implement said amplification circuit.

1           5. The amplification circuit of claim 4, wherein said resistor is integrated into said  
2 amplifier.

1           6. A device comprising:  
2 an amplification circuit amplifying an input signal to generate an output signal, said  
3 amplification circuit comprising:  
4 an amplifier amplifying said input signal, wherein a gain of said amplifier  
5 changes when amplifying said input signal; and  
6 a component provided across an output of said amplifier, wherein an  
7 impedance of said component does not change when amplifying said input signal  
8 such that changes in an amplification factor provided by said amplification circuit are  
9 minimized when amplifying said input signal to generate said output signal.

1           7. The device of claim 6, wherein said component comprises a resistor.

1           8. The device of claim 7, wherein said amplifier contains a first output terminal and  
2 a second output terminal, and wherein said resistor is connected to both of said first output  
3 terminal and said second output terminal.

1           9. The device of claim 8, wherein said amplification circuit further comprises a  
2 feedback circuit across said amplifier, wherein a resistance value of said resistor is chosen  
3 using the equation:

4 
$$G300 = (1/B300) / [1 + \{ Sc * (1 + P * V_{out}) + S390 \} * \{ 1 + Q * V_{out} * (Sc + S390) / Hc \} / (Hc * B300)],$$

5 wherein said resistance =  $(1/S390)$ , G300 represents an amplification factor of said  
6 amplification circuit, B300 represents a feedback factor of said feedback circuit, Sc, P, Q and  
7 Hc are determined by a manufacturing process used to implement said amplification circuit.

1 10. The device of claim 9, wherein said resistor is integrated into said amplifier.

1 11. The device of claim 9, wherein said device comprises a wireless base station, said  
2 device further comprising:

3 an antenna receiving an external signal;  
4 an analog processor processing said external signal to generate said input signal; and  
5 an analog to digital converter converting said output signal to a sequence of digital  
6 codes.

1 12. A method of implementing an amplification circuit for amplifying an input signal  
2 to generate an output signal, said method comprising:

3 providing an amplifier to amplify said input signal, wherein a gain of said amplifier  
4 changes when amplifying said input signal;

5 providing a component across an output of said amplifier, wherein an impedance of  
6 said component does not change when amplifying said input signal such that changes in an  
7 amplification factor provided by said amplification circuit are minimized when amplifying  
8 said input signal to generate said output signal.

1 13. The method of claim 12, wherein said component comprises a resistor.

1           14. The method of claim 13, wherein said amplifier contains a first output terminal  
2           and a second output terminal, and wherein said resistor is connected to both of said first  
3           output terminal and said second output terminal.

1           15. The method of claim 14, further comprising a feedback circuit across said  
2           amplifier, wherein a resistance value of said resistor is chosen using the equation:

3           
$$G300 = (1/B300) / [1 + \{ Sc * (1 + P * V_{out}) + S390 \} * \{ 1 + Q * V_{out} * (Sc + S390) / Hc \} / (Hc * B300)],$$

4           wherein said resistance =  $(1/S390)$ , G300 represents an amplification factor of said  
5           amplification circuit, B300 represents a feedback factor of said feedback circuit, Sc, P, Q and  
6           Hc are determined by a manufacturing process used to implement said amplification circuit.